Pest Update (September 9-16, 2009)

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E-samples

Be careful what fruit you pick this fall! I had two recent photographs sent in requesting identification as the people were planning to pick the fruit for jam; one makes an excellent jam, the other not so read the following carefully! The picture to the left is the American cranberrybush viburnum (*Viburnum trilobum*), a tall shrub native to South Dakota as well as much of the northern North America from New Brunswick to British Columbia. It is native to Roberts and Marshall Counties in eastern South Dakota and it is also found in the Black Hills. The plant is widely used as an ornamental and windbreak shrub so it is not difficult to find. At this time of year it is very easy to spot as it becomes covered with bright red, globose drupe fruit about 1/3 inch diameter. The fruit appears in clusters throughout the plant. Since it is a drupe fruit, similar to cherries, you'll find a single seed in the center of a juicy fruit. While the fruit makes good jams and preserves, it must be picked at the right time and that is only after the first one or two hard frost. If you pick it before then the fruit is very sour but becomes sweeter (or at least less sour) after frosts. You'll notice the birds usually do not touch the fruit until then, either should we. American cranberrybush viburnum can be identified by not only its red fruit clusters but the large, 2 to 5-inch long, three lobed leaves that are arranged across from one another on the twig.

Another fruit send in this is the common buckthorn (*Rhamnus cathartica*). I frequently receive picture of the fruit in the fall and this is one NOT to eat as doing such will result in violent diarrhea. The fruit is a glossy black, berry-like drupe, about ¼ inches in diameter. The fruit will occur in clusters along the stem. The leaves are simple, not lobed like the cranberrybush viburnum and they occur almost opposite one another on the shoots, an arrangement referred to as subopposite. There is also a single thorn at the tip of each stem.

Every late summer I receive calls, emails and samples of walnut anthracnose. This is a common fungal disease of black walnut that usually does not express symptoms in our state until about now. The most common symptoms are yellowing, browning and even curling of diseased leaflets. The infected leaflets will also have small lesions, from pinhole to pencil size, each with a brown ring around them. The disease is not a major

threat to walnuts as the leaves do not begin to be affected until late summer. Interestingly the addition of nitrogen fertilizer in late spring will often decrease the severity of the disease.

Samples received

Apparently this was the week everyone wanted to know what was in their yard! Most of samples dealt with identification.

Brown County (extension) **How many things are wrong with this spruce tree?**

There is a sizeable population of spruce spider mites on the sample but what really caught my attention was the very heavy infestation of spruce bud scale. There were clusters of scales at every node and some even between nodes! There are two possible treatments; apply a pesticide containing imidacloprid this fall as a soil drench or spray the tree with a pesticide containing carbaryl or acephate next June, about the time lindens are in bloom. I would probably try both, the fall soil drench is not always effective, but the canopy spray next June should reduce the problem with the scales. The mite population can be treated with horticultural oil now with a repeat application in ten days. The oils may remove some of the blue coloration to the needles.

Brown County (extension) **Please identify this sample from Richman.**

This is the cockspur hawthorn (*Crataegus crusgalli*), an attractive small tree noted for its glossy leaves and fall fruit.

Brown County (extension) **What are these scales on Jim's aspen tree?**

This is the oystershell scale, a creamy white to brown tear-drop shaped insect that feeds on shoots and stems of many trees including aspen. The adult scale has died but beneath the hard shell are many eggs. These will hatch around the end of May or early June. The best control is probably a dormant oil spray but this should be applied in late winter, early spring just before the buds begin to swell. The hard shell prevents the oils from penetrating until it has weathered a bit and this usually has occurred by March.

Campbell County (extension) **Enclosed are some samples from Pollock. There is a shrub and a tree that might be an elm.**

The shrub is the double-flowering plum (*Prunus triloba* var *multiplex*) an old favorite noted for its attractive spring flowers. The tree is not an elm, but its close relative, the common hackberry (*Celtis occidentalis*). This tree is not susceptible to Dutch elm disease so having a nearby elm die of the disease will not be an issue. The plum and the hackberry are already developing discolored leaves, a common occurrence at this time of year.

Corson County (extension) **What is wrong with Ed's aspen trees?**

The leaves are infected with marssonina blight (*Marssonina populi*), a fungal disease that attacks aspen and cottonwoods. The most common symptoms are dark brown flecks on the leaves that eventually merge together to form blotches. The infected leaves begin to turn bronze by this time of year, often are stunted, and have whitish masses of conidia in the lesions. The disease is typically a problem when we have wet weather in May and June when the spores are released and it is common to see the disease on a tree one year and not the next. The disease can be managed with fungicide treatments applied at bud break next spring. The most common fungicides used contain chlorothalonil as the active ingredient.

Gregory County (conservation district) **Please identify this shrub.**

This is the prickly-ash (*Zanthoxylum americana*), a thorny shrub common to woodlands from western South Dakota to the east. It is not a true ash so will not be attacked by the emerald ash borer (unfortunately). The thorny stems and tiny shiny black seeds are good identification clues at this time of year.

Gregory County (conservation district) **What is wrong with Jim's pines, the needles are brown from the trunk up?**

I suspect there may be other stressor contributing to the discoloration, particularly if these are small trees, but the only stressor found in the sample was diplodia tip blight, a very common fungal disease of pines. The new shoot can become stunted and the needles discolored and fall prematurely. I was able to find the old fruiting structures under the needle sheaths, the small black dots on the tip of the needles are the fruiting structures to fungi that invade already dead tissue. The tip blight can be controlled with an application of chlorothalonil applied just as the buds open next spring and repeat in two weeks as the needles complete emergence. This will only manage the disease, not eliminate it, so treatments may need to be repeated in future years.

Haakon/Jackson Counties (extension) **Please identify this sample for us.**

These are shoots from a green ash (*Fraxinus pennsylvanica*).

Haakon/Jackson Counties (extension) **Please identify these samples for us.**

The woody shrub was a sandbar willow (*Salix exigua*) and the herbaceous plant (with a smooth, almost woody, stem was hemp dogbane (*Apocynum cannabinum*).

Lincoln County (extension) **Why is this sugar maple dying?**

The tree is infected with verticillium wilt. This is a vascular wilt disease that affects many different trees (as well as other plants) but is most commonly found on maples and catalpa in our state. The most common symptoms are wilting and curling of the foliage, sometimes only a branch or two, other times the entire tree. There will also be canopy dieback, again sometimes limited to a single branch, other times the entire tree. Another common symptom of the

disease in maples is light green streaking of the sapwood but this is not already readily visible. The disease does not always kill its host; sometimes the tree will recover and live for years to come so removal is not always the first option. There are no effective chemical controls for this disease so I'd suggest wait to see what spring brings. If the tree does die I would not plant a maple, catalpa or elm in the same location as the disease is soil-borne and can remain for years. Surprisingly, you can have nearby maples that never show symptoms of the disease.

Yankton County (extension) **What is wrong with this spruce? Please identify this leaf and also identify this leaf and problem from Turner County.**

The spruce had a small population of spruce spider mites, not enough to warrant treatment this fall, but the needlecast infections appears very high. I have not seen much of the Rhizosphaera needlecast this year except down in the southeastern part of the state. The tree should probably be treated next spring, about the time the new growth is ½ inch long with a fungicide containing chlorothalonil and repeat the application about three weeks later.

The "elm" to identify is an elm, the Siberian elm (*Ulmus pumila*) often, though incorrectly, identified as the Chinese elm.

The Turner County sample is a green ash that is showing some symptoms of ash anthracnose. I would not recommend treatment for the disease next spring as the severity of anthracnose disease varies considerable from year to year and it may not show on this tree next year regardless of whether any treatments are performed.